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Abstract

STUDIES AND MANUFACTURE OF PLUTONIUM FUEL

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The studies carried out at the C. E. A. on the properties of fast neutron reactor fuels, the manufacture of fuel elements and their behaviour under irradiation are broadly outlined.

The metal fuels studied are the ternary alloys U Pu Mo, U Pu Nb, U Pu Ti, U Pu Zr, the ceramic fuels being mixed uranium and plutonium oxides, carbides and nitrides obtained by sintering.

Results are given on the manufacture of uranium fuel elements containing a small proportion of plutonium, used in a critical experiment, and on the first experiments in the manufacture of fuel elements for the reactor Rapsodie.

Finally the results of irradiation tests carried out on the prototype fuel pins for Rapsodie are described.

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